

Remarks

The present amendment is in response to the action mailed in the above-referenced case on May 8, 2003. Claims 1-14 are presented for examination. The Examiner objects to the drawings under 37 CFR 1.83(a). Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph and under 35 U.S.C. 101.

Applicant has carefully studied the Examiner's rejections, objections and statements of the Office Action. In response applicant herein amends the claims and corrects the drawings in order to overcome the drawing objections, the 112 rejection, and the double patenting rejection.

Regarding the Drawing objection, the Examiner states that the drawings must show every feature of the invention specified in the claims. Therefore, the Examiner continues, the "interface units" of claims 1 and 8 must be shown by the figures to enable a type of packet source destination device such as a switch, a workstation/computer, or server/computer etc...

Applicant points out that Fig. 3 of applicant's specification clearly shows 4 interface units (IU) having element numbers IU's 20(1) to 20(4). Further, each IU has 4 ports clearly labeled 1 to 4. Figure three is supported in the text of the specification on page 10 lines 15 through 28. Therefore, applicant asserts that the "interface units" and the "ports" recited in applicant's claims are clearly shown in the drawings of the specification. A method of reallocating switching circuitry in a switching fabric to permit data transfer among a plurality of interface units each having a plurality of data ports.

Applicant fails to see the necessity of further limiting the data ports mentioned in the claims as to what type of data source, destination, or forwarding device the ports are communicating against. Applicant argues that the invention is specifically claimed as an apparatus and method of reallocating switching circuitry in a switching fabric to permit data transfer among a

plurality of interface units each having a plurality of data ports. The heart of the invention is the unique way in which data packet communication channels and ports are assigned between the interface units. What structure the interface unit lies in is not central to the invention.

The Examiner states that the word "channel" recited in claims 1 and 8 must be shown to be a type of medium, connection, or protocol enabled line source. Applicant herein amends the claims to more particularly point out that the channels are actually data communication links between the interface units. Applicant will reserve the action of limiting the type of hardware link, i.e. wires, optical fiber etc., in future prosecution only if necessary to do so to overcome a cited reference in the art.

The Examiner states that the physical aspect of "switch planes" require further explanation. Page 8, first paragraph of applicant's specification describes circuitry 27 including a switch fabric 22 which routes data packets between interface units 20. Each switch fabric includes a plurality of switch planes, wherein each switch plane is in the form of a crosspoint switch. The specification mentions that details of the hardware implementation of the switch planes are described in copending U.S. application number 09/108,771, filed on July 2, 1998, incorporated herein by reference.

In the second paragraph of page 8 in applicant's specification switch planes are further described to have N switching channels (data communication links) labeled ^{C₁ C₂ ... C_N}CH1 CH2 etc. (see Fig. 2). Within a single switch plane each said channel is connected to a port of an interface unit. *(not shown)* Applicant points out the functional value of switch planes in a switching fabric as a beneficial way to group communication links as a crosspoint switch. In this manner all communication links from given ports on an interface unit can pass through the same switch plane. Therefore, reallocating circuitry can affect a group of communication links at a time by manipulating the circuitry

allocation of the switch plane. Further, if a switch plane fails it can be bypassed etc.

Applicant argues that a drawing correction is not necessary at this point in prosecution, as amendments to the claims are herein made and all of the features of the claims are clearly shown in the drawings and supported in the text of the specification.

Regarding the 112 rejection The Examiner states that it is unclear how circuitry is reallocated. Applicant herein amends claim 6 to positively recite that the allocation table defines relationships between ports and communication links. Applicant's specification beginning on page 9 states that an allocation table or remap table is stored in a memory and defines a relationship between the associated port and the switch channel, or data communication link. (10) including Figs. 3-9 clearly describe how switching circuitry is reallocated. Generally, allocation tables are kept in a memory and used to allocate, or assign, circuitry (ports communication links, etc.) for communication. [Circuitry is reallocated by updating allocation tables, therefore changing the relationships between ports and communication links of circuitry use in the communication switching process.] Applicant believes that the specification clearly explains this process and supports the claim language. Therefore, in light of the claim amendments and the explanations provided above on behalf of the drawings, applicant requests the 112 rejection be removed.

Applicant believes the current amendments to the claims which further limit the allocation table and channels should overcome the double patenting rejection.

As all of the claims standing for examination, as amended, have been shown to be patentable over the rejection and objections of the Examiner, applicant respectfully requests reconsideration and that the present case be passed quickly to issue.

If any fees are due beyond fees paid with this office action response, authorization is made to deduct those fees from deposit account 50-0534. If any time extension is needed beyond any extension requested with this amendment, such extension is hereby requested.

Respectfully Submitted,

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